unpatentable over Yamanami et al. '858 in view of previously-cited Yamanami et al. (US 5,028,745). Claims 58 and 67 were rejected under 35 U.S.C. 103(a) as being unpatentable over Yamanami et al. '858 in view of Fukuzaki et al. For the reasons detailed below, applicants respectfully traverse these rejections of the claims.

To show that a claim is anticipated under 35 U.S.C. § 102(b), each and every element as set forth in the claim must be found, either expressly or inherently, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). M.P.E.P. 2131. In the present case, Yamanami et al. '858 does not teach each and every element as set forth in independent Claims 22 and 59, either expressly or inherently, and therefore the rejection of Claims 22 and 59 on this basis cannot be sustained.

Yamanami et al. '858 describes a tablet 1 for use with a plurality of position designating devices (or "input pens") 2, wherein a magnetostrictive sensor (forming the "tablet body 12") is used to detect the position of the pen(s). (FIG. 1, Col. 3, line 40-Col. 4, line 2.) Specifically, the magnetostrictive sensor includes "a multiplicity of magnetostrictive transmitting media…some (being) disposed at right angles with others." In one example, "magnetostrictive vibrations are periodically imparted to each of these media from one end thereof to the other end. When an input pen 2 approaches the media, the magnetostrictive vibration at that location is enhanced by means of a bar magnet provided in the pen." In another example, the magnetostrictive media are "excited by an AC current, and voltages induced therein are detected by detection coils. X-Y coordinates are detected by making use of the phenomenon in which, when a similar input pen approaches the media, the permeability of the magnetostrictive media changes locally thereby causing a resultant change in the induced voltages." (*Id.*) Referring additionally to FIG. 6, an antenna coil 100 is provided to surround the coordinates input range 102 of the tablet body 12, and is configured to transmit radio waves at a plurality of frequencies. (FIG. 6, Col. 4, lines 11-15; Col. 5, lines 61-66.) The input pens 2 each includes a bar magnet 21 for position detection purposes relative to the magnetostrictive sensor, and a tuning circuit 22 having a unique resonance frequency for input pen type detection purposes. (FIG. 2, Col. 5, lines 24-60.) Specifically, the antenna coil 100 transmits the radio waves at multiple frequencies, and receives signals generated by these tuning circuits 22 in response to the radio waves, to thereby enable detection of which (different) type of input pen is used. (Col. 5, lines 61-66; Col. 1, lines 9-15;

Col. 6, lines 42-58.) It is noted that the signal generated by the tuning circuit 22 in a pen 2 is received by the antenna coil 100 in the tablet 1 and is used to detect the pen type; it is not used to determine the pen position.

While FIG. 6 of Yamanami et al. '858 shows a single antenna coil 100 surrounding the coordinates input range 102, "a plurality of antenna coils may also be used." (FIG. 8, Col. 4, lines 18-20.) Further, "these coils may superpose over each other, i.e. the loop formed by coil 108a may be superposed over the loop formed by 108d, or vice versa." (Col. 4, lines 36-38.) It is again noted, however, that the signal generated by the tuning circuit 22 in a pen 2 and received by the antenna coil, having different configurations (100, 108a-108d, etc.), is used to detect the pen type and is not used to determine the pen position.

As such, Yamanami et al. '858 fails to teach or suggest at least the following elements of independent Claims 22 and 59. First, it fails to teach or suggest "a transducer including a power receiving circuit, wherein the power receiving circuit responds to an electromagnetic field radiating from the surface and sends a transmit signal, which is received by the position resolving grid and used to determine a position of the transducer relative to the surface." (Claim 22, emphasis added.) To the contrary, as described above, in Yamanami et al. '858, the signal generated by the tuning circuit 22 in a pen 2 is received by the antenna coil 100 (arguably corresponding to the claimed "power transmission coil") to detect the pen type, and is not received by the magnetostrictive sensor defining the coordinates input range 102 (arguably corresponding to the claimed "position resolving grid") to determine the pen position. Similarly, Yamanami et al. '858 does not teach or suggest "causing the power receiving circuit [in the transducer] to respond to an electromagnetic field radiating from the surface and to send a transmit signal" and "causing the position resolving grid to receive the transmit signal from the transducer to thereby determine a position of the transducer relative to the surface," as recited in Claim 59. To the contrary, in Yamanami et al. '858, it is the antenna coil 100 that receives the transmit signal from the pen to detect the pen type, and not the magnetostrictive sensor to determine the pen position.

Second, Yamanami et al. '858 fails to teach or suggest "the plurality of power transmission coils being overlapping resonant power transmission coils," as recited in both Claims 22 and 59. Nowhere in Yamanami et al. '858 is any suggestion that the antenna coil 100

is a “resonant power transmission coil.” The ”resonant power transmission coils,” as used in the claims, mean power transmission coils that essentially form an inductor to achieve current multiplication associated with resonance – the multiplication of a current beyond what the current would be if there were no resonance. See, for example, the description in the present application as reproduced below.

> The surface of the present invention contains *a series of overlapping transmit resonant inductive based coils or loops*, that when enabled by *self-resonance*, or driven by an external AC signal source, individually or in a pattern, creates a radiating electromagnetic field that powers or charges the transducer(s) in a manner having *increased voltage amplitude over non-resonant methods…. Less power is required in the surface because of the properties of current multiplication associated with resonance.*
>
> (Application, page 5, lines 6-16, emphasis added.)
>
> *The resonant characteristics* of the transmit loops on the surface convert the waveform to a substantially sinusoidal form.
>
> (Application, page 5, line 32-page 6, line 1, emphasis added.)
>
> *The operation and efficiency of the resonant surface coils compared to non-resonant circuits are substantial. In the case of the resonant circuit, energy is transferred back and forth between an inductor (in this case a coil loop or loops on the surface) and a capacitor(s). Once resonance is achieved, it is only necessary to provide additional current to account for losses in the circuit caused by the equivalent series resistance in the circuit.* The amount of current multiplication can be defined by the Q or quality quotient of the circuit that is defined as the ratio of the impedance of the inductance divided by the value of the equivalent series resistance (XL/Rs).
>
> (Application, page 6, line 28-page 7, line 4, emphasis added.)
>
> *The higher the Q the higher the resonant current that can also be called current multiplication – the multiplication of the current beyond what the current would be if there were no resonance. It is important to understand that the current is increased and the resulting magnetic field is increased a proportional amount by the use of resonance.*
>
> (Application, page 7, lines 10-16, emphasis added.)
>
> The transmit signal is fed to *tuned powering loop drivers 11* [FIG. 8] that directs the signal to a specific output or address. Under the control of the microcontroller, the signal is fed to one of the selected transmit grid loops 24.

> The *tuned powering loop drivers 11* have an on/off input that is gated by the microcontroller to modulate or turn the selected grid signal on or off.
>
> (Application, page 21, lines 9-13, emphasis added.)

Therefore, Yamanami et al. '858 fails to teach or suggest at least that "a transducer including a power receiving circuit, wherein the power receiving circuit responds to an electromagnetic field radiating from the surface and sends a transmit signal, which is received by the position resolving grid and used to determine a position of the transducer relative to the surface" (Claim 22) or "causing the position resolving grid to receive the transmit signal from the transducer to thereby determine a position of the transducer relative to the surface" (Claim 59) and "the plurality of power transmission coils being overlapping resonant power transmission coils" (Claims 22 and 59). Consequently, Yamanami et al. '858 does not anticipate Claims 22 and 59 and, therefore, Claims 22 and 59 are allowable over Yamanami et al. '858. The rest of the claims (Claims 51, 53-58, 60, and 62-67) are all dependent claims of Claims 22 and 59 and, therefore, these claims are further allowable for at least the same reasons why Claims 22 and 59 are allowable.

All of the claims remaining in the application are clearly allowable. Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,

SEED Intellectual Property Law Group PLLC

/Shoko Leek/
Shoko I. Leek
Registration No. 43,746

SIL:jrh

701 Fifth Avenue, Suite 5400
Seattle, Washington 98104
Phone: (206) 622-4900
Fax: (206) 682-6031

1677406_1.DOC